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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/940,795	08/29/2001	Larry Hamid	12-61 US	4658

25319 7590 03/16/2005

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EXAMINER	
DAVIS, ZACHARY A	

ART UNIT	PAPER NUMBER
2137	

DATE MAILED: 03/16/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/940,795	HAMID, LARRY	
	Examiner	Art Unit	
	Zachary A Davis	2137	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *29 August 2001*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-18* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-18* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date *20030428*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Information Disclosure Statement

1. The listing of references in the specification is not a proper information disclosure statement. 37 CFR 1.98(b) requires a list of all patents, publications, or other information submitted for consideration by the Office, and MPEP § 609 A(1) states, "the list may not be incorporated into the specification but must be submitted in a separate paper." Therefore, unless the references have been cited by the examiner on form PTO-892, they have not been considered.

2. It is noted that the information disclosure statement filed 28 April 2004 fails to comply with 37 CFR 1.98(a)(3) because it does not include a concise explanation of the relevance, as it is presently understood by the individual designated in 37 CFR 1.56(c) most knowledgeable about the content of the information, of each patent listed that is not in the English language. However, the information disclosure statement has been considered.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –

> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. Claims 1-4 are rejected under 35 U.S.C. 102(e) as being anticipated by Matyas, Jr. et al, US Patent 6697947.

In reference to Claim 1, Matyas discloses a method including storing biometric data of each of M designated persons (column 9, lines 5-11 and 55-60), capturing biometric information of each of N persons and providing biometric data corresponding to the captured biometric information where N<M (column 1, lines 43-48, where authentication messages include biometric data; column 9, lines 16-20; column 9, lines 66-column 10, line 4), comparing the captured biometric data with the stored biometric data (column 9, lines 20-24; column 10, lines 4-6), and determining access privileges if the results of the comparison authenticate the N users as a subset of the members of the group of M persons (column 9, lines 11-14 and 24-28 where n=M and k=N; column 10, lines 9-13).

In reference to Claim 2, Matyas further discloses that the subset is a set of X persons, where X is at least equal to N (column 9, lines 11-14 where X=N=k).

In reference to Claims 3 and 4, Matyas further discloses the subset is one of a plurality of subsets of N persons, where each subset is a different combination (column 9, lines 11-14, where any k of the users must present valid biometric samples to create a valid verification).

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

6. Claims 5 and 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Matyas in view of Schneier, *Applied Cryptography*.

In reference to Claim 5, Matyas discloses everything as applied to Claim 4 above. Matyas further discloses the use of biometrics to authenticate a threshold scheme for key sharing (see column 15, lines 25-46). However, Matyas does not explicitly disclose a different number of people in different subsets. Schneier discloses that secret sharing threshold schemes can be used to model any sharing scheme, such as different numbers of people in different groups (see page 72, first paragraph). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the method of Matyas to include allowing different subsets to include different numbers of members, in order to increase the versatility of the system (see Schneier, page 72, first sentence).

In reference to Claim 6, Schneier further discloses that different subsets can have different access privileges (see page 71, section 3.7, third paragraph; page 72, first paragraph; page 73, "Secret-Sharing Schemes with Prevention").

7. Claims 7-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Matyas in view of applicant admitted prior art.

In reference to Claim 7, Matyas discloses a method including providing each of M designated persons with a device operable to capture biometric information (see column 7, lines 39-57), storing biometric data of each of the M designated persons (column 9, lines 5-11 and 55-60), capturing biometric information of each of N persons and providing biometric data corresponding to the captured biometric information where N<M (column 1, lines 43-48, where authentication messages include biometric data; column 9, lines 16-20; column 9, lines 66-column 10, line 4), comparing the captured biometric data with the stored biometric data and transmitting an authorization signal if the result of the comparison authenticates the user (column 9, lines 20-24; column 10, lines 4-9), and determining access privileges if the authorization signals authenticate at least N users as a subset of the members of the group of M persons (column 9, lines 11-14 and 24-28 where n=M and k=N; column 10, lines 9-13). However, although Matyas does disclose that the computer system used may be handheld and may be embodied in other devices (column 7, lines 29-38), Matyas does not explicitly disclose the use of a portable biometric device.

Applicant admits as prior art a portable fingerprint recognition and transmission device (page 4, paragraph 0012 of Applicant's specification). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the method of Matyas by including the use of such a portable biometric device,

in order to take advantage of the smaller, lighter, less burdensome, and more portable miniaturized devices (see paragraph 11 of Applicant's specification).

In reference to Claim 8, Matyas discloses that access is denied in absence of at least N of M authorization signals (column 9, lines 29-37; column 10, lines 13-21).

In reference to Claim 9, Matyas discloses that the subset includes at least two persons (see, for example, column 1, lines 43-47, where the method is for "multi-party authentication").

In reference to Claims 10 and 13, Matyas discloses a method including storing biometric data of each of M designated persons (column 9, lines 5-11 and 55-60), capturing biometric information of each of N persons and providing biometric data corresponding to the captured biometric information where N<M (column 1, lines 43-48, where authentication messages include biometric data; column 9, lines 16-20; column 9, lines 66-column 10, line 4), comparing the captured biometric data with the stored biometric data (column 9, lines 20-24; column 10, lines 4-9), transmitting an authorization signal for each of X (where X=N) comparison results that authenticate the N users as a subset of the members of the group of M persons (column 9, lines 11-14 and 20-28 where n=M and k=N; column 10, lines 6-13), and determining access privileges depending on the authorization signals (column 9, lines 11-14 and 24-28; column 10, lines 9-13). However, although Matyas does disclose that the computer system used may be handheld and may be embodied in other devices (column 7, lines 29-38), Matyas does not explicitly disclose the use of a portable biometric device.

Applicant admits as prior art a portable fingerprint recognition and transmission device (page 4, paragraph 0012 of Applicant's specification). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the method of Matyas by including the use of such a portable biometric device, in order to take advantage of the smaller, lighter, less burdensome, and more portable miniaturized devices (see paragraph 11 of Applicant's specification).

In reference to Claims 11 and 12, Matyas further discloses that access privileges include functional limitations (for example, see column 16, lines 42-49, where the biometric data are used to recover a shared key) and can define a time limitation (see column 9, lines 38-53).

In reference to Claim 14, Matyas discloses a system including at least one device (see column 7, lines 39-57) that includes a biometric sensor and an encoder for providing biometric data based on biometric information captured by the biometric sensor (Figure 1, biometric information input device 35), a memory (Figure 1, memory 36) for storing biometric data of at least one of M designated persons (column 9, lines 5-11 and 55-60), and a processor (figure 1, processor 38) for comparing the captured biometric data with stored biometric data and producing an authorization signal if the comparison indicates a match (column 9, lines 20-24; column 10, lines 4-9). Matyas further discloses a port for receiving the authorization signals (column 9, lines 16-20) and a processor for determining access privileges dependent on the authorization signals of a subset of N persons of the group of M persons, where N<M (column 9, lines

11-14 and 24-28 where n=M and k=N; column 10, lines 9-13). However, although Matyas does disclose that the computer system used may be handheld and may be embodied in other devices (column 7, lines 29-38), Matyas does not explicitly disclose the use of a portable biometric device, nor does Matyas disclose that the device specifically includes a transmitter.

Applicant admits as prior art a portable fingerprint recognition and transmission device, including a transmitter (page 4, paragraph 0012 of Applicant's specification). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the system of Matyas by including the use of such a portable biometric device, in order to take advantage of the smaller, lighter, less burdensome, and more portable miniaturized devices (see paragraph 11 of Applicant's specification).

In reference to Claim 15, Matyas further discloses that the biometric sensor can be a fingerprint sensor (column 6, lines 13-19).

In reference to Claim 16, Applicant further admits that the portable biometric device includes a wireless transmitter (page 4, paragraph 0012 of Applicant's specification, where a transmitter is infrared or radio).

In reference to Claim 17, Applicant further admits that the portable biometric device is handheld (page 4, paragraph 0012 of Applicant's specification).

8. Claim 18 is rejected under 35 U.S.C. 103(a) as being unpatentable over Matyas in view of applicant admitted prior art as applied to claim 17 above, and further in view of Schneider et al, US Patent 5456256.

Matyas as modified above discloses everything as applied to Claim 17 above; however, neither Matyas nor the applicant admitted prior art explicitly discloses that the handheld portable biometric device is a smart card. Schneider discloses an imaging system that can be used for identification, which can be embodied in a smart card (column 24, lines 50-64). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to further modify the system of Matyas as modified above, by using a smart card as the portable biometric device, in order to minimize delay and inconvenience (see Schneider, column 1, lines 26-29).

Conclusion

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

a. Scott et al, US Patent 6111977, discloses a hand-held portable biometric device, and was cited by Applicant as admitted prior art.

b. Scheidt et al, US Patent 6542608, discloses a device for generating key splits that can generate the shares based on biometric input.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Zachary A Davis whose telephone number is (571) 272-3870. The examiner can normally be reached on weekdays 8:30-6:00, alternate Fridays off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Andrew Caldwell can be reached on (571) 272-3868. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

ZAD
zad

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